



## Equine Infectious Anemia (EIA)

**Disease Name:** Equine Infectious Anemia, EIA, Swamp Fever, Coggins disease.

**Disease Type:** Virus.

**Transmission:** Equine Infectious Anemia is usually spread via mechanical transmission (transfer of the pathogen in the mouth of an insect) of blood from an infected horse by blood-feeding insect such as a horsefly, deerfly, or stable fly, to an uninfected horse. EIA can also be transmitted iatrogenically- via medical equipment such as needles, syringes, IV tubing, or other equipment contaminated with blood or through transfusion of blood or blood products from an infected horse. Transmission from mare to foal in utero has also been documented and the EIA virus has also been isolated from semen of infected stallions.

**Frequency:** Rare.

**Incubation period:** 15 to 45 days.

**Carrier status:** Horses that have been infected with EIA are lifelong carriers. Horses showing clinical signs of the disease are more of a threat to healthy populations because of higher levels of viral load (concentration of the virus circulating in the blood).

**Shedding period:** Inapparent carriers can shed the virus, though the greatest risk of transmission is present when an infected horse is showing clinical signs.

**Latency:** The virus can remain latent for the lifespan of the horse. Horses that survive the initial clinical phase of the disease usually become inapparent carriers within a year and then remain a reservoir for the disease the remainder of their lifetime.

**Severity:** High. EIA can be fatal and all horses infected with the disease become lifelong reservoirs.

### Clinical signs:

- Fever
- Depression
- Low platelet count
- Anemia
- Red or purple spots on the mucous membranes
- Edema
- Muscle weakness
- Muscle atrophy

**Diagnosis:** Equine Infectious Anemia is diagnosed by testing antibody levels in the blood. The most common test used to diagnose EIA is called a Coggins test. Antibodies are detected by two tests, AGID

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(agar gel immunodiffusion) and ELISA. Both tests are available in many laboratories; the ELISA requires less time for to receive results.

**Treatment:** There is no treatment or cure for Equine Infectious Anemia. Horses confirmed positive can be quarantined for the rest of their life but are usually euthanized.

**Prognosis:** Poor. EIA can be fatal and although horses can be subclinical carriers, they can shed the virus for the duration of their lifetime and are usually euthanized if confirmed positive for the disease.

**Prevention:** There is no vaccine available for Equine Infectious Anemia. Methods of prevention include vector control (insect control) to reduce the possibility of transmission, ensuring that needles and other medical equipment contaminated with blood are never shared between horses. Routine EIA testing should be performed to determine the status of the horses in an area and thus prevent transmission of the virus to horses nearby. Many equine events require a negative Coggins test within 12 months of the event to enter the facility.

Practice vector management on all properties where horses are kept:

- Use insect repellents frequently; re-apply after rain.
- Keep horses in at night when possible, and apply insect repellent.
- Eliminate or minimize standing water.
- Stock tanks or ponds with mosquito-feeding fish.
- Eliminate brush piles, gutters, old tires and litter.
- Remove all equipment in which standing water can collect.
- Practice fly control by managing manure piles, and cleaning pastures

**Biosecurity:** Infected horses must be euthanized or quarantined with separation from non-infected horse by at least 200 yards to prevent spread of the disease. Infected horses cannot be moved from the original premises during their lifetime except by special USDA approval

([https://www.aphis.usda.gov/vs/nahss/equine/eia/eia\\_umr\\_jan\\_10\\_2007.pdf](https://www.aphis.usda.gov/vs/nahss/equine/eia/eia_umr_jan_10_2007.pdf)). Practice vector control management on your facility to reduce risk of transmission from insects.